Work Order ID 108637 October-25-13 1:13:15 PM					Page 1									
Item ID: D3176-1 Revision ID: Item Name: Bushing			Accept *N900040100* Setup Start Stop								I V	*NS1* *NS2*		
Start Date: Required Date: Reference:	10/25/13 : 11/08/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*			Cust Item I Customer:	D:							
Approvals:		•	Date: <u>B-/0-2†</u> Date:				ate:		R	kun Stai Sto	" [X]	R1* R2*		
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Houi	rs	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp		
Draw Nbr	Re	evision Nbr						•						
D3176	Re	ev A			***************************************									
*100 *100* Hardinge Hardinge CNC Lath	he Small	Hardinge CNC LATHE Memo 1-Turn as p	SMALL er Folio FA286 & DWG D3	0.00 0.00 1762-Deburr	(PAS)	13/	u/03	** -	20	Ø	· · · · · · · · · · · · · · · · · · ·			
*110 *110* QC Quality Control		QC2- Inspect parts off r	nachine FAI/FAIB	0.00	0AS 400 800 800 800 800 800 800 800 800 800	13/1	1/03		20	_ Ø	· · · · · · · · · · · · · · · · · · ·			
120 *120* Mill Conv		CONVENTIONAL MII	LLING MACHINE	0.00	AS \ 40	13/11	/03		20	Ø		70AS 200 9.85		

1- Mill flats as per dwg D3176 2- Deburr

Conventional Milling Machine

DQA:		_ Date:			WORK ORDER NON	c	SNIFOI						123	DART
QA Closed:		Date:			WORK ORDER NON	-((JNFOI	RIVIAINCE / UF	PUATE	W	ork Order up	odate only	\neg	AEROSPACE
14/a wh. O a da				·	DISPOSITION				AGAINST	DE	PARTMENT	/PROCESS		
Work Orde	er:]	Rework	1		Skid-tube	Crosstube		1	Water Jet	٦,	-nainearina 🗀
Part N	in				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	┦ "	Engineering Quality
· Gren					Use-as-is		1	noforming	Finishing		4	re/Packaging	\dashv	Other
NCR N	۱o.				Suspected Unapproved			Large Fab	Composite	-	,	Supplier	1	
					<u></u>						1	```		
Root				Desci	ription of work order update		Initial	Acti	ion		Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descr	iption		Date	Verification		QC Inspector
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Offset/Setup													ŀ	
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Supplier		,												
Training														
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Unapproved		_	<u> </u>		·									
						FA	ULT CAT	TEGORY	THE STATE OF THE S					
Landir	ng Gear			_	General		1 .				7	_		
	Bending			<u> </u>	Bend	<u> </u>	1	Program			Outside Dim	├		essure/Forced
		Not Conce	ntric		BOM/Route	<u></u>	Grain				Over/Under	tolerance	Se	t-up
ļ	Cracks			<u> </u>	Broken/Damage/Defect		Hardwa				Part Incorred	⊢	Ter	mperature/Cure
1		(ink/Ripple	e/Wave	<u> </u>	Burrs	<u></u>	Inspect	ion Incomplete/Un	nqualified		Part Lost/Mi	ssing	_\We	ble
	Cuffs			<u> </u>	Contamination	<u></u>	4	tions Incomplete/U	Inclear		Part Moved]Wr	ong Stock Pulled
	Crushing	_		ļ	Countersink	<u> </u>	1	ned/off center			Positioned V			
	Heat Tre			<u> </u>	Cut Too Short		Mislabe				Power Loss/	Surge	Otl	ner
		on Strip in	Tube	<u> </u>	Drawing		Misread	i						
	Marks/0			<u> </u>	Drill Holes	<u></u>	Off-set							
Turning Sequence			<u> </u>	Finish		4	Calibration							
	Wave/Twist in Tube		Fit/Function	1	Out of 9	Seguence								

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

Work Orde				*108	637*					Page 2
Item ID: Revision ID: Item Name: Start Date: Required Date: Reference:	D3176- Bushing 10/25/11 11/08/11	3 Start Qty: 20.00	*20* *20*	Accept	*N900040 Cust Item ID: Customer:	100)* s	etup Star Stop	1 14	S1* S2*
Approvals:	Proces	s Plan:	Date:	Tooling:	Date:	_	R	tun Star	17	R1*
	QC:_		Date:	SPC (Y/N):	Date:			Sto	*N	R2*
Sequence ID/ Work Center II	D	Operation Description QC2- Inspect parts off ma	chine FAI/FAIB	Set Up/ Run Hours	Tool ID Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 QC Quality Control		Мето	•••••	0.00 (740	13/11/03		20	Ø		·
140 *140* QC Quality Control		QC8- Inspect parts - secon	nd check	0.00	L11/105		20	_ &		. <u></u> -
*150 *150* Packaging		Identify as per dwg & Sto- Memo	ck Location (1632	0.00			20 x		/2	DAS 26 9-89
									15-1	11-6.

DQA:		_ Date:			_								•	DA DT
QA Closed:		Date:			WORK ORDER NON	-C(ONFO	RMANCE /	UPDATE	W	ork Order up	odate only		AEROSPACE
Work Order					DISPOSITION				AGAINST		PARTMENT	•		<u> </u>
Part No					Rework Scrap Use-as-is		1	Skid-tube Machining noforming	Crosstube Small Fab Finishing		4	Water Jet d. Eng. Coor. re/Packaging		Engineering Quality Other
NCR No	0				Suspected Unapproved			Large Fab	Composite			Supplier		
Root Cause	Date	Step	Qty	Desc	cription of work order update or non-conformance	1	Initial nief Eng	1	Action scription		Sign & Date	Verificatio	n	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved														·
						FAI	ULT CAT	regory				•		
Landing	Bending Centre N Cracks Crimp/K Cuffs Crushing Heat Tre Inspection	Not Concer ink/Ripple 3 eat on Strip in	/Wave Tube		General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set	ion Incomplete/ ions Incomplete ned/off center	e/Unclear		Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	tolerance ct ssing Vrong		Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
Γ	Wave/T	wist in Tub	oe .		Telt/Function		Out of s	Sequence						

October-25-13 1:13:15 PM

D3176-1

Accept

N900040100

Setup Start

Stop

Revision ID:

Start Date:

Bushing Item Name:

10/25/13

QC:

Start Qty: 20.00 Req'd Qty: 20.00

Cust Item ID:

Customer:

Reference:

Approvals:

Required Date: 11/08/13

Process Plan: _____

Date:

Date: _____

Tooling:

SPC (Y/N):

Date: Date:

Run

Stop

Sequence ID/ Work Center ID Operation Description

QC21- Final Inspection - Work Order Release

Set Up/ **Run Hours** **Tool ID**

Tool # Plan Code

Accept Qty

Reject

Reject Insp.

160

160 QC

Memo

0.00

0.00

Quality Control

Qty

Number Stamp

DQA:		— ^ι)ate: _			MODE ODDED NON	cc	NIFOI	DAANCE / LIDDATE				<u>```</u> ^∟	DART
QA Closed:		Ū	Date:			WORK ORDER NON-	-00	JINFUI	RIVIAINCE / OPDATE	W	ork Order up	odate only	—	AEROSPACE
144 - ul. Oud						DISPOSITION			AGAINS	ST DE	PARTMENT	/PROCESS		
Work Orde	er:					Downst			المسابع المام		1	\4/a+a= la+[¬	
Part N	do.					Rework Scrap			Skid-tube Crosstub Machining Small Fa	_	Bro	Water Jet d. Eng. Coor.		gineering Quality
raiti	···.					Use-as-is			noforming Finishir		4	re/Packaging	\dashv	Other
NCR N	No.					Suspected Unapproved		THETT	Large Fab Composi		1100	Supplier		
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Root					Desci	ription of work order update	1	nitial	Action		Sign &			
Cause	Da	te S	Step	Qty	ı	or non-conformance	Ch	ief Eng	Description		Date	Verification		C Inspector
Design			Ĭ											
Doc/Data							ŀ							
Equip/Tooling														
Handling/Pre														
Material														
Operator														
Offset/Setup														
Process														
Supplier														
Training	Ш													
Transport	Ш					•								
Unapproved														
-							FAL	ULT CAT	regory					
Landii	ng Gear				_	General		1			7	r	_	
	Bend	-			-	Bend		1	rogram	-	Outside Dim	 		ure/Forced
		e Not C	oncen	tric	-	BOM/Route		Grain		_	Over/Under		Set-∟	,
	Crack		a		-	Broken/Damage/Defect	_	Hardwa		-	Part Incorre	·		erature/Cure
	-	o/Kink/I	Ripple	/Wave		Burrs	_	· ·	ion Incomplete/Unqualified	<u> </u>	Part Lost/Mi	ssing	Weld	
	Cuffs				-	Contamination	-	4	ions Incomplete/Unclear	<u> </u>	Part Moved	L	Wron	g Stock Pulled
	Crush	-			-	Countersink	\vdash	1 -	ned/off center	-	Positioned V	, ,	-	
	⊢	Treat		. .	\vdash	Cut Too Short	<u> </u>	Mislabe			Power Loss/	Surge [Other	-
	—	ction St	· ·	lube	\vdash	Drawing	\vdash	Misread	j					
	\vdash	s/Chatt			-	Drill Holes	\vdash	Off-set	- W			 		
Turning Sequence Wave/Twist in Tube			-	Finish Fit/Function	\vdash	i	Calibration							
	ı ıvvave	77 I WIST	ın tub	ρ	- 1	1F11/F1111CT1ON	1	it list of 9	SAMIANCA					

Page 1

Work Order ID: 108637

108637

D3176-1 Parent Item:

D3176-1

Parent Item Name: Bushing

Start Date: 10/25/13

Required Date: 11/08/13

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP Rev:B Removed -3

05-11-29) ILN

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Primary Item Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R1.000		Purchased	No		100	f	96.8680	0.31	7	DAS.		
M303R1	NNN							**		40	3/11	/04

303 Round Bar 1.00

Loc Code **Location** Loc Qty MAT028 96.86801579 121070 1.5789E-05 7.5 m126618 96.868

DQA:		_ Date:			WORK ORDER NON	~	281501	SAAAICE / LIDDA	\ T E			DART
QA Closed:		Date:			WORK ORDER NON-	-C(JNFOI	RIVIANCE / UPDA		Vork Order u	odate only	AEROSPACE
147 - J. O. J.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Work Orde	er:			!	S	ıİ				7) / / / / / / / / / / / / / / / / / / /	,
Dowt N	10				Rework				rosstube		Water Jet	Engineering
Part N	NO				Scrap Use-as-is			Ğ ——	mall Fab Finishing		d. Eng. Coor. re/Packaging	Quality
NCR N	NO.				Suspected Unapproved		men	~ —	mposite	- Rec/sto	Supplier	Other
NCIVI					Suspected Onapproved	j		Large Fab CO	niposite [3uppner [
Root				Desc	ription of work order update		Initial	Action		Sign &		1
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descriptio	on	Date	Verification	QC Inspector
Design												
Doc/Data						1						
Equip/Tooling		`				1						
Handling/Pre		ii										
Material												
Operator						1						
Offset/Setup						l						
Process												
Supplier]		ł						
Training						Ì						
Transport						İ						
Unapproved						l						
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Landi	ng Gear				General							
	Bending			L	Bend		Folio/F	rogram		Outside Dim	nensions	Pressure/Forced
	Centre I	Not Conce	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
	Cracks		•		Broken/Damage/Defect		Hardwa	re		Part Incorre	ct	Temperature/Cure
	Crimp/K	ink/Ripple	e/Wave		Burrs		Inspect	ion Incomplete/Unqual	ified	Part Lost/M	issing	Weld
	Cuffs				Contamination		Instruct	ions Incomplete/Uncle	ar	Part Moved		Wrong Stock Pulled
'	Crushin	g			Countersink		Misalig	ned/off center		Positioned \	Wrong	
	Heat Tre	eat			Cut Too Short		Mislabe	eled	Γ	Power Loss/	'Surge	Other
	Inspecti	on Strip in	Tube		Drawing		Misread	1	_		_	•
	Marks/0	Chatter			Drill Holes		Off-set					
	Turning	Sequence	!		Finish		Out of (Calibration				
Wave/Twist in Tube			Fit/Function		10ut of	Seguence			· · · · · · · · · · · · · · · · · · ·			

DART AEROSPACE LTD	Work Order: /	08637
Description: Bushing	Part Number:	D3176-1
Inspection Dwg: D3176 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X F	First Article	Prototype
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. [Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1	Ø0.990	+/-0.010	.992			VERJ	PLO-12
J	Ø0.472	+0.010/-0.000	.474			11	1.
	3.716	+/-0.010	3,724	V		1.	
J	0.130	+/-0.010	130			*1	H
1	0.277	+/-0.010	. 282	1		1,5	ş 6
J	0.550	+/-0.010	· SSD	/		ι '	14
Ì	0.839	+/-0.010	, 839	V		1.7	'1
	0.745	+0.005/-0.000	, 747	V		r _t	1.7
Ì	0.625	+/-0.010	.672	/		, ,	, (
Ì	5/8-UNF18-3B	N/A	N/A				
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Measured by:	40	Audited by:	ont	Prototype Approval:	N/A
Date:	13/11/03	Date:	13/11/05	Date:	N/A

Γ	Rev	Date	Change	Revised by	Approved
Γ	Α	03.11.12	New Issue (KJ/RF	1
	В	06.03.09	Added 5/8-UNF18-3B	KJ/JLM ox	

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